



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,518	10/21/2003	Tae-Young Jung	1594.1285	8645

21171 7590 10/18/2005

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

CHAUDHRY, SAEED T

ART UNIT	PAPER NUMBER
----------	--------------

1746

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/689,518	Applicant(s) JUNG ET AL.	
	Examiner Saeed T. Chaudhry	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 35-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/21/03;5/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restriction

Applicant's election of Group I, claims 1-34 in Paper No. 9/29/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. § 119, which papers have been placed of record in the file.

The Title

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

Claims 1-17, and 19-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is incomplete and confusing because it is not clear that "heating air" is performed in the chamber or outside of the chamber and how heated air is supplied in the chamber to generate hot water with heat exchange.

Claim 13 recites the limitation "the heated" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 16 and 17 are incomplete and confusing because it is not clear that where the heated air is circulated.

Claim 19 is incomplete and confusing because it is not clear how the heat exchange is performed between the air and the water.

Claim 20 is incomplete and confusing because it is not clear how the supplied water is heated with an air generator.

Claim 26 is confusing because it is not clear how only the air is heated in the chamber, while the water is in the chamber.

Double Patenting

Claims 1, 5, 15-19 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 34-41 of copending Application No. 10/689,507. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (c) he has abandoned the invention.

Art Unit: 1746

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(f) he did not himself invent the subject matter sought to be patented.

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Sumida et al.

Sumida et al (5, 947,135) disclose a method for drying dishes in a dishwasher chamber with only heated air (see col. 11, lines 11-34).

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Bleckmann.

Bleckmann (4,326,552) discloses a method for drying dishes in a dishwasher with only heated air (see 48-53 and Fig. 1).

Claims 1-2, 5-11, 15, 17, 18, 19, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakata.

Sakata (5,355,900) disclose a dishwasher with the drying cycle has a heat transfer assembly comprising a heat transfer fan and a motor driving the heat transfer fan. The heat transfer fan is provided on the rear side of the chamber, and transfers the heat between the air within the chamber and the air on the outside of the chamber so as to dehumidify the air within the chamber. The air within the chamber is circulated, and the outside air is circulated to pass over the heat exchanger. In this type of the dishwasher, during a drying cycle, cold water is

Art Unit: 1746

supplied to the bottom of the chamber to promote the heat transfer between the cold water and the humid air within the chamber, also (see col. 1, lines 16-29).

Finally, the drying cycle is started wherein the water on the dishes is evaporated. In the drying cycle, the heater 40 is actuated intermittently, the fan means 56 is actuated continuously, and the water valve 72 is opened temporarily so as to supply the water to the dehumidifying surface 62. The water supplied to the dehumidifying surface 62 is spread on substantially the whole surface thereof. Since the relative humidity of the air in the chamber heated by the heater 40 is lower, the air promotes the evaporation of the water drops on the dishes. Then, the heated air absorbing the moisture in the chamber is sucked into the inlet hole 52, and is then exhausted from the blowing outlet 66 through the air circulation passage 69, since the fan means 56 is actuated. In the air circulation passage 69, when the air flows between the dehumidifying surface 62 and the rear wall 16, since the heated air contacts with the dehumidifying surface 62, the heated air is cooled down by the water. Since the water on the surface 62 has a low temperature compared with the heated air, some drops of water are condensed from the heated air. Therefore, the absolute humidity of the air becomes lower, i.e. the air is dried. Since the dried, cooled down air is heated again and the relative humidity of the air becomes lower, the air promotes the evaporation of the water drops on the dishes. Accompanying the above performance, the temperature of the water kept on the dehumidifying surface 62 increases gradually. In the drying cycle, since the water valve 72 is opened intermittently, cold water is supplied to the dehumidifying surface 62 intermittently. When the water is supplied several times, water heated by the transfer of the heat from the air is collected in the liquid container 32

Art Unit: 1746

in the chamber 14. Then, the water is drained from the dishwasher 10 by actuating the drain pump 36 intermittently (see col. 3, line 41 through col. 4, line 7).

Sakata discloses all the claimed process limitation of heating air; supplying water and heating the water by heated air and the heater is not submerged under the supplied water. Therefore, the claimed process is anticipated.

Allowable Subject Matter

Claims 20-25 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.

Claims 3-4, 12-14, 26-32 and 34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Reasons For Allowable Subject Matter

The following is an Examiner's statement of reasons for the indication of allowable subject matter:

None of the prior art discloses or suggests a method of heating the washing chamber with heated air before washing and rinsing operations or manipulating the chamber temperature by circulating heated air or supplying water.

Prior art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim (5,277,210) discloses a flexible air duct communicate with the dishwasher unit for conducting condensed water back to dishwasher, while hot air is discharged through an air outlet.

Art Unit: 1746

Quayle (4,247,158) discloses a dishwasher in which an air is directed over a heating element to pickup heat, rises through the dishes and flows out of the washing chamber through a vent in the door.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed T. Chaudhry whose telephone number is (571) 272-1298. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Barr, can be reached on (571)-272-1414. The fax phone number for non-final is (703)-872-9306.

When filing a FAX in Gp 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Saeed T. Chaudhry
Patent Examiner

MICHAEL BARR
SUPERVISORY PATENT EXAMINER

